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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,862	08/09/2001	A. C. McQuaide JR.	00984	3811

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EXAMINER

TIEU, BINH KIEN

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,862

Applicant(s)

MCQUAIDE ET AL.

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-11,15-17,24-32 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-11,15-17,24-32 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/06/2005 has been entered.

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Response to Amendment

2. Applicants' amendment filed on 09/06/2005 was entered. Applicants canceled claims 6-8, 12-14, 18-23, 27-29, 33-35 and 37-38. Applicants further amended all independent claims 1, 9, 15, 24, 30 and 26 with the features of "...for determining a current account balance while the prepaid communications service is in use by a subscriber, for comparing the current account balance to a recharge threshold, and for generating alerts once the current account balance falls below the recharge threshold while the prepaid communications service is in use, and wherein the prepaid application module decreases an amount of time from one alert to a subsequent alert as the current account balance continues to fall during use of the prepaid communications service..." have been acknowledged. As the results, claims 1-5, 9-11, 15-17, 24-32 and 36 are pending at this point.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coppage (U.S. Pat. #: 6,741,687) in view of Laybourn et al. (U.S. Pat. #: 6,480,710 as cited in the previous Office Action).

Regarding claim 1, Coppage teaches a communications system, having a prepaid architecture for managing a plurality of prepaid wireless accounts for communication services, wherein each prepaid account is associated with a prepaid subscriber (i.e., communication system as shown in figure 3), comprising:

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a wireless network including a mobile switch, in communication with a wireless device, the wireless device for remotely managing at least one of the prepaid accounts (i.e., BSC 152, 164, MSC 110, 118 and client devices 202, 226);

a wide area network including (i.e., Data Network 210);

a prepaid account database for storing records assigned to subscribers of prepaid communications service (i.e., Account Balance Database 352 of Control Network Entry 214 as shown in figure 4; col.5, line 64 through col.6, line 10);

a prepaid application module for initializing and updating the prepaid accounts for determining a current account balance while the prepaid communications service is in use by a subscribers for comparing the current account balance to a recharge threshold, and for generating alerts once the current account balance falls below the recharge threshold while the prepaid communications service is in use. And wherein the prepaid application module decreases an amount of time from one alert to a subsequent alert as the current account balance continues to fall during use of the prepaid communications service (col.11, line 22 through col.12, line 6); and

a prepaid server (i.e., media server plays prepaid account balance messages to subscribers and is connected to the control network entity 214) coupled to the prepaid account database and the prepaid application module (col.6, lines 11-22); and

a gateway (i.e., Access Gateway 206) in communication with the mobile switch of the wireless network and in communication with the wide area network to deliver the alerts to the wireless device (col.5, lines 36-49).

It should be noticed that Coppage further teaches that if the subscriber wants to refill the prepaid account, the subscriber may redirected to a web site for recharging. Coppage failed to

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teach such web site included a banking institution, a debit company or a credit card transaction server, coupled to a credit card database, for checking available credit and for refilling the prepaid account. However, Laybourn et al. ("Laybourn") teaches such features in col.7, lines 6-59 for a purpose of processing payment authorization and clearing payments.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of the feature of a credit card transaction server coupled to a credit card database, for checking available credit, as taught by Laybourn, into view of Coppage in order to process payment authorization and to clear payments for the refills.

Regarding claim 2, Coppage further teaches the subscriber remotely updating the prepaid account via a web site and the subscriber's prepaid account is automatically managed and updated with the refills (col.11, lines 37-49).

Regarding claims 3-5, Coppage further teaches limitations of the claims in figures 2-3, col.4, line 29 through col.5, line 63.

6. Claims 9-11, 24-29, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laybourn et al. (U.S. Pat. #: 6,480,710) in view of Suryanarayana et al. (U.S. Pat. #: 6,487,401) also cited in previous Office Action), and further in view of Coppage (U.S. Pat. #: 6,741,687).

Regarding claim 9, Laybourn teaches a prepaid communication system in (see Fig.1) for providing wireless access to a network for a prepaid account; coupling a wireless device to the network;

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collecting a credit card account information from the prepaid subscriber through the network by the subscriber entering the credit card number into the wireless device in (see col.6, lines 9-28 and col.7, lines 17-59);

establishing the prepaid account on a subscriber data aid receiving a prepaid amount and checking the credit card account for available credit in (see col.7, lines 17-59).

Laybourn teaches an TCP/IP network through which a subscriber can connect to recharge or update one's account but fails to teach being implicitly being able to recharge an account using a WAP and automatic recharge.

Suryanarayana et al. ("Suryanarayana") teaches a prepaid wireless telephone account regeneration in a wireless protocol system in (see col.4, lines 47-57 and col. 7) that a user can enter an amount he wants, an account recharged by, which can be pre-stored or be done in time to a credit card account or any accounts authorized by the subscriber.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Suryanarayana et al. into that of the combination thus giving mobile telephone users access to the internet in (see col.1 of Suryanarayana) and being able to update one's balance regardless of geographical location, an advantage in areas where it would have been a toll call to call a number to update one's account, to be able to recharge an account automatically without having to repeat the process over and over which saves user's time or in case where a user might not have enough money, control a recharge based on current available funds.

It should be further noticed that Laybourn and Suryanarayana, in combination, fails to clearly teach the features of determining a current account balance while the prepaid

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communications service is in use by a subscriber, comparing the current account balance to a recharge threshold, and pushing alerts to the wireless device once the current account balance falls below the recharge threshold while the prepaid communications service is in use, and wherein the prepaid application module decreases an amount of time from one alert to a subsequent alert as the current account balance continues to fall during use of the prepaid communications service, as amended and argued by the Applicants in their remarks. However, Coppage teaches such features in col.11, line 22 through col.12, line 6 for a purpose of providing prepaid calling call and refill services to prepaid account in wireless communications network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Coppage into view of Laybourn and Suryanarayana in order to provide prepaid calling call services with refills service to prepaid accounts in wireless communications network.

Regarding claims 10-11, Suryanarayana further teaches limitations of the claims in col.4, lines 4-12.

Regarding claims 24 and 36, see the explanation regarding claim 9 because the claimed method steps would be performed by the claimed apparatus.

Regarding claims 25-27 and 29, the combination including Suryanarayana further teaches the claimed subject matter in col.4 and the figures.

Regarding claim 28, it's known to send a low frequency tone to inform a user of the fact that account balance is nearing a threshold or should be recharged during a call and the examiner takes official notice to this effect.

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7. Claims 15 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith et al. (U.S. Pat. #: 6,493,547) in view of Adams et al. (U.S. Pat. #: 6,181,785) (both references were also cited in the previous Office Action), and further in view of Coppage (U.S. Pat. #: 6,741,687).

Regarding claim 15, Raith teaches a method an apparatus for providing usage information in wireless communication systems comprising:

providing wireless access to a network which manages a prepaid account based on usage and upon receiving an indication that a communication session with the wireless terminal has ended, sending cumulative message which could include current usage and past usage information as stored to a prepaid subscriber in (see col.4, col.6, lines 5-20, col.8, lines 61-67) but fails to teach the step of querying.

It's well known to query an account to determine how much balance is available for calls and so forth.

Adams et al. ("Adam") teaches a communication system wherein charge data can be sent to a user after a call by querying a network element for this information in (see fig. 4) after call termination.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Adams into that of Raith thus making it possible to query a database for charge data as stored after a call to get accurate information as stored in the database for billing purposes and discrepancy purposes and to budget and plan future calls in (see col.1, lines 53-55 of Adams reference).

It should be further noticed that Adam and Raith, in combination, fails to clearly teach the features of pushing alerts to the wireless device during the communication session once the current account balance falls below the recharge threshold amount, and an amount of time from one alert to a subsequent alert is decreased as the current account balance continues to fall during communications session, as amended and argued by the Applicants in their remarks. However, Coppage teaches such features in col.11, line 22 through col.12, line 6 for a purpose of providing prepaid calling call and refill services to prepaid account in wireless communications network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Coppage into view of Raith and Adam in order to provide prepaid calling call services with refills service to prepaid accounts in wireless communications network.

Regarding claim 30, see the explanation regarding claim 15 because the claimed method steps would be performed by the claimed apparatus.

8. Claims 16-17 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith et al. (U.S. Pat. #: 6,493,547) in view of Adams et al. (U.S. Pat. #: 6,181,785) and Coppage (U.S. Pat. #: 6,741,687) as applied to claim 15 above, and further in view of Suryanarayana et al. (U.S. Pat. #: 6,487,401).

Regarding claims 16-17, the combinations fails to teach the claimed limitations implicitly as taught by Suryanarayana. Suryanarayana teaches a prepaid wireless telephone account regeneration in a wireless protocol system in (see col.4, lines 47-57 and col.7) that a user can enter an amount he wants, an account recharged by, which can be pre-stored or be done in time

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to a credit card account or any account. Suryanarayana et al. teaches being able to notify a user of a need for a recharge in (see col.4, lines 4-17) can be done at any time during a call, a possibility.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Suryanarayana into that of the combination thus giving mobile telephone users access to the internet in (see col.1 of Suryanarayana) and being able to update one's balance regardless of geographical location, an advantage in areas where it would have been a toll call to call a number to update one's account and to be able to receive prepaid services for thus who might not have easy access to telephones in remote areas.

Regarding claims 31-32, see the explanation above.

Response to Arguments

9. Applicant's arguments with respect to claims 1-5, 9-11, 15-17, 24-32 and 36 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

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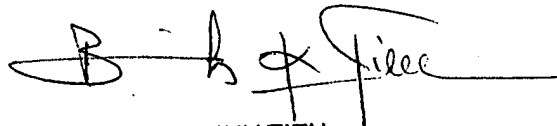
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A handwritten signature in black ink, appearing to read "Binh Tieu", with a stylized flourish at the end.

BINH TIEU
PRIMARY EXAMINER

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Date: November 01, 2005